Phoenix Goodyear
31215 Litchfield

84-03

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 9

In the Matter of	)	ORDER
	)	
UNIDYNAMICS/PHOENIX, INC. (GOODYEAR, ARIZONA),	)	Docket No. 84-03
	)	
Respondent.	)	
	)	
Proceeding Under Section 3013 of the Resource Conservation and Recovery Act (42 U.S.C. §6934)	)	

I

JURISDICTION

The following Order is issued on this date to Unidynamics/Phoenix, Inc., 1000 N. Litchfield Road, Goodyear, Arizona (hereinafter referred to as Respondent), pursuant to the authority vested in the Administrator of the United States Environmental Protection Agency (EPA) under §3013 of the Resource Conservation and Recovery Act (RCRA); 42 U.S.C. §6934, and redelegated to the Director, Toxics and Waste Management Division, EPA, Region 9. Notice of issuance of this Order has been given to the State of Arizona.

II

FINDINGS OF FACT

1. Respondent is the current owner and operator of a facility located at 1000 N. Litchfield Road in Goodyear, Arizona.

2. Respondent has engaged in the storage, treatment and disposal of hazardous wastes.

3. On April 3, 1978, the EPA performed an inspection of Respondent's facility at 1000 N. Litchfield Road, Goodyear, Arizona pursuant to the Clean Air Act. The inspection revealed that Respondent used a substantial amount of TCE (estimated at 1180 gal/yr) and other solvents. An inspection report was prepared after a review of Respondent's records and a physical inspection of Respondent's facility. The inspection report noted that TCE was disposed by spraying on Respondent's land and was used to eradicate weeds. The report also indicated that waste solvents were also disposed of in dry wells (according to a 1980 inspection report, the dry wells are 30 to 35 feet deep, approximately 30 inches in diameter, and filled with rocks). The 1978 report contained a rough calculation of gross solvent disposal rate which was estimated at 3 gallons per day. The report further stated that prior to 1978 nearly all waste solvents were disposed of on site. A small portion was recycled but most was sprayed on site or poured down the dry wells.

4. On June 2, 1978, Respondent provided information to Maricopa County Health Department stating that in 1977 Respondent used the solvents listed below in the quantities specified.

Respondent also stated that the majority of the solvents used in 1977, once spent, were disposed via dry wells:

Solvent	Quantity
TCE	1180 gal
Isopropyl Alcohol	660 gal
Toluene	60 gal
Methyl Ethyl Ketone	220 gal
Acetone	165 gal

5. On July 15, 1980, an EPA inspection of Respondent's facility documented the use of eleven dry wells and two unlined oxidation ponds for on-site waste disposal. At the time of the inspection, one of the Respondent's representatives stated that all but two or three of the dry wells have been in existence since 1963. Most of the wells, according to the inspection report, received effluent from settling basins. Three of the wells, however, received untreated waste solvents. The report estimated Respondent's TCE usage at 1,000 gal/year.

5. On January 7, 1981, Respondent submitted to EPA a RCRA Hazardous Waste Part A Permit Application. The following hazardous wastes, some of which are halogenated and non-halogenated solvents, were listed in the Hazardous Waste Part A Permit Application as being either treated, stored, or disposed at respondent's facility:

K054	Chrome Waste
D002	Corrosive Waste
D001	Ignitable Waste
D003	Reactive Waste
P012	Arsenic Trioxide
P029	Copper Cyanide
P030	Cyanides
P031	Cyanogen
P105	Sodium Azide
P106	Sodium Cyanide

U002	Acetone
U012	Aniline
U019	Benzene
U021	Benzidine
U032	Calcium Chromate
U044	Chloroform
U069	Di-n-Butyl Phthalate
U112	Ethyl Acetate
U122	Formaldehyde
U154	Methanol
U159	Methyl Ethyl Ketone
U169	Nitrobenzene
U220	Toluene
U223	Toluene Disocyanate
U228	Trichloroethene, Trichloroethylene, or TCE
U080	Dichloromethane

6. On June 8, 1981, Respondent submitted to EPA a Notification of Hazardous Waste Site pursuant to §103(c) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. §9603(c). The following hazardous wastes, classified as solvents, were reported by Respondent as being handled at Respondent's Litchfield facility beginning in 1963:

U002	Acetone
U154	Methanol
U159	Methyl Ethyl Ketone
U220	Toluene
U226	1,1,1-Trichloroethane
U228	Trichloroethene, Trichloroethylene, or (TCE)

The notification also reported that Respondent handled unspecified acids beginning in 1963.

7. On June 22, 1982, the Arizona Department of Health Services sampled the City of Goodyear Well #4 which is located on Respondent's property. The analysis showed a TCE concentration of 20.1 ppb.

8. On September 3, 1982, EPA sampled wells in the Goodyear area. The analysis of the sample taken from the City of

Goodyear well #4 on Respondent's property revealed a TCE concentration of 32 ppb.

9. On September 2, 1982, Respondent submitted information to EPA in response to EPA's request for information pursuant to Section 104 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. §9604, and Section 3007 of RCRA, 42 U.S.C. §6927, which stated the following:

A. Spent TCE has been generated at a rate of approximately 1000 gal/year since 1963.

B. Eleven dry wells and two oxidation ponds have been used for on-site waste disposal. Neither of the ponds is lined. All but two or three of the dry wells have been used since 1963. Three of the dry wells have had waste dumped directly into them (i.e. without first passing through an oxidation pond).

C. Prior to 1978, nearly all waste solvents were disposed on site. A small percentage of TCE was recovered and reclaimed by Southwest Solvents of Chandler, Arizona. The remainder was sprayed on site land as a weed killer or poured into the dry wells.

D. A total of 5-10 gal/week of Methyl Ethyl Ketone, Acetone, Isopropyl Alcohol, and Diacetone Alcohol was dumped directly into four dry wells.

10. Spent halogenated and non-halogenated solvents, including TCE, are hazardous substances as defined by §101(14) of CERCLA, 42 U.S.C. §9601(14) and a hazardous waste as defined by §1004(5) of RCRA, 42 U.S.C. §6903(5).

11. TCE is used primarily as a metal degreasing agent and is slightly soluble in water. TCE is an anesthetic which depresses the central nervous system. TCE has been demonstrated to cause cancer in animals and it has also been shown to be mutagenic in certain laboratory tests. Short term exposure to TCE has been reported to produce liver and kidney damage and central nervous system disturbances in mammals, including humans.

12. EPA has determined in its ambient water quality criteria that 2.7 parts per billion (ppb) of TCE would be expected to produce one additional case of cancer in a population of 1,000,000 [F.R./Vol. 45, No. 231/November 28, 1980/ p. 79341].

TCE has been detected in the ground water beneath the facility in concentrations as high as 32 ppb. This concentration is more than 10 times the level determined by EPA to pose a risk of one excess cancer incident in a population of 1,000,000.

13. The State of Arizona has established an action level of 5 ppb for TCE found in drinking water. Using this guideline, the State has requested the closure of drinking water wells in which the concentration of TCE exceeds 5 ppb.

14. The aquifer system which is tapped by City of Goodyear well #4, located on Respondent's property, is the primary source of water for approximately 5,250 people in the GoodyearAvondale area.

III

DETERMINATION

Based upon the foregoing Findings of Fact, the Director, Toxics and Waste Management Division, EPA, Region 9 has determined that hazardous wastes have been stored, treated, and disposed of at Respondent's Litchfield facility and that the release of such wastes from Respondent's facility has occurred and may present a substantial hazard to human health or the environment.

EPA has further determined that Respondent is a current owner/operator responsible for conducting the actions ordered herein, which are necessary to ascertain the nature and extent of the hazard.

IV

ORDER

Based upon the foregoing Determinations and Findings of Fact, Respondent is hereby ordered, pursuant to §3013 of RCRA, as amended, 42 U.S.C. 6934, to prepare and submit to EPA for approval, within 30 days of the effective date of this Order, a written proposal (hereinafter referred to as Proposal) to conduct a comprehensive sampling and analysis program designed to support subsequent remedial actions. This Proposal shall also identify the nature and extent of chemical contamination of surface soils, subsurface soils, surface water, and groundwater both within and beyond of Respondent's facility. This Proposal shall also include provisions for gaining access to and obtaining samples from adjacent properties which may have been contaminated with chemical compounds.

The Proposal shall include the following:

1. A sufficient number of sample locations in order to define the nature and extent of the contamination, to provide the data required to propose clean-up alternatives, and to determine the physical characteristics of each major subsurface lithologic unit beneath Respondent's facility and the surrounding area including, but not limited to:
    a. transmissivity
    b. storativity
    c. hydraulic conductivity
    d. saturated thickness
    e. porosity
    f. geologic description
    g. lithology
    h. specific yield
    i. specific storage
2. A plan to describe the hydrogeology and hydrology on and beneath Respondent's facility and the affected surrounding area, sufficient to characterize the direction and rate of contaminant transport, the volume of contaminated surface and ground water, and the extent to which contaminants may have moved beyond Respondent's facility via surface or subsurface transport;
3. A plan to determine the vertical and areal distribution of contaminants in both the saturated and unsaturated zones;
4. A plan for sampling soil at the location of any past or present drying beds, other surface impoundments, injection wells, or other storage, disposal, or spill sites. Such

plan shall include enough samples to determine the extent to which any past or present drying beds, surface impoundments, injection wells, or other storage, disposal, or spill sites may have permitted infiltration of contaminants into the subsurface environment.

5. Sampling protocols for surface water, groundwater, surface soil, and subsurface soil;

6. Analytical and quality control protocols for the sampling and analysis program including, but not limited to:

   a. adequate sample identification;

   b. sample preservation techniques;

   c. chain of custody;

   d. use of EPA-approved analytical methods;

   e. identification of person(s) conducting the sampling and analysis; and

   f. photographic documentation of sample collection.

7. A plan for retaining, identifying, maintaining and submitting to EPA upon request splits of all samples taken pursuant to this Order. Identification and maintenance of all split samples shall be in accordance with the protocols specified above (6a, 6b, and 6c);

8. Precautions which will be taken to insure the health and welfare of the individuals associated with the field work and laboratory analyses; and

9. Precautions which will be taken during sampling to insure the health and welfare of the surrounding community.

All data (unless otherwise exempted by EPA) shall be reported in a STORET compatible format. STORET is an acronym used to identify the computerized data base system maintained by EPA for the STORage and RETrieval of data relating to the quality of the waterways within, and contiguous to, the United States. This format requires that each sample collected be properly identified as to sampling location, sampling date and time, sample depth and media sampled (e.g., water or sediment). All parametric observations shall be associated with the proper 5 digit STORET parameter code and reported in proper units. Detection limits are to be specified where applicable.

The above work shall be conducted in accordance with the Workplan for the Litchfield Airport Area Remedial Investigation and Feasibility Study (hereinafter "Workplan") prepared by CH_2M Hill under work assignment number 73-9L19.0. Nothing in this Order shall be construed so as to imply that Respondent is ordered to perform only that work which is specified in the Workplan.

It is the responsibility of Respondent to obtain access to and use of any off-site areas. Respondent assumes full responsibility for any claims arising from the activities conducted by Respondent or its representatives or consultants on third-party property in connection with this Order. Respondent will provide access to the site for EPA employees, contractors, or consultants at all reasonable times and will permit such persons to be present and move freely in the area where any work is being conducted pursuant to this Order.

Respondent shall provide EPA with copies of all charts, maps, letters, memoranda, invoices, shipping manifests or other records or documents relevant to the subject matter of this Order as requested by EPA or which are required by RCRA, or any other applicable law, to be provided to EPA.

The Proposal ordered herein must be submitted by Respondent to Stephen A. Johnson, Environmental Protection Agency, at the address listed below, within thirty days of the date of this Order. The Proposal shall be subject to review, modification and approval by EPA.

Respondent shall complete all work, including sample analyses, as set forth in the approved proposed plan within 90 days after receipt of EPA approval of the Proposal.

Respondent shall submit to EPA monthly status reports describing activities performed during that month including, but not limited to, a description of any well drilling, soil boring, sample collection, sample analysis, water level measurement, and engineering or geologic analysis.

Respondent shall submit a final written report describing the data collected and findings made within 120 days after receipt of EPA approval of the Proposal.

V

OPPORTUNITY TO CONFER

Under the provisions of RCRA, Respondent may confer with EPA at any time prior to submittal of the proposal. At any conference held pursuant to Respondent's request, Respondent may appear in person and by attorney or other representatives for the purpose of presenting any objections,

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defenses or contentions which Respondent may have regarding this Order.

Any objection, defense or contention which Respondent may make should be in writing, signed and forwarded to the contact person named below on or before the date on which Respondent is required to submit the Proposal. The opportunity to confer does not alter the requirement for submittal of the Proposal within thirty days of the effective date of this Order.

VI

LIABILITY

If EPA determines that Respondent is not able to conduct the activities required by this Order, or if actions carried out are deemed unsatisfactory, then EPA may conduct such actions deemed reasonable by EPA to ascertain the nature and extent of the hazard. Respondent may then be ordered to reimburse EPA for the costs of such activity pursuant to § 3013(d) of RCRA, 42 U.S.C. §6934(d). In the event Respondent fails or refuses to comply with the terms and provisions of this Order, EPA may commence a civil action, pursuant to § 3013(e) of RCRA, 42 U.S.C. §6934(c) to require compliance with such Order and to assess civil penalties not to exceed $5,000 for each day that Respondent fails or refuses to comply.

It is so ordered on this 27th day of March, 1984. This order shall become effective immediately.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

BY: Harry Seraydarian

HARRY SERAYDARIAN
DIRECTOR, TOXICS AND WASTE MANAGEMENT DIVISION

Contact person:

Stephen A. Johnson (T-4-2)
Environmental Protection Agency
215 Fremont Street
San Francisco, California 94105
Telephone: (415) 974-7512